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AN ANNOTATED BIBLIOGRAPHY ON NON-DESTRUCTIVE TESTING OF CONCRETE, 1975 - 1983

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Synopsis: Non-destructive concrete testing methods provide construction engineers and concrete technologists with useful tools for quality control of concrete and for evaluating the strength and durability of existing structures. This annotated bibliography, chronologically arranged, compiles literature published from 1975 to 1983 on innovations and modifications of non-destructive methods used for the testing of concrete. Attention was focused on the new methods used for monitoring concrete deterioration, crack development and corrosion of reinforcement.

The journals, symposia and books selected for review have international stature, and contain state-of-art experimental works from diverse laboratories. Authors' abstracts or their translations are included when possible, to assist the concrete engineer in determining the applicability of a method to provide needed data.

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Keywords: acoustic emission techniques; alkali-aggregate reaction; break-off method; cathodic protection; chemical attack; chlorides in concrete; coatings; combined NDT methods; concr. bridge deck; concrete pavement; concr. piles; concr. strength; corrosion; cracking (fracturing); damping properties; durability; electrical methods; el.resistivity methods; gamma radiography; gamma radiometry; holographic technique; impact tests; infrared thermography; magnetic methods; maturity concept; mechanical sonic pulse method; micro wave absorption technique; moisture content determination; neutron moisture gages; neutron activation analysis; nuclear methods; penetration resistance; permeability; petrography; photoelastic methods; pull-off method; pull-out method; pulse echo technique; pulse velocity method; radioactive methods; radiation tests; rebar corrosion; rebar concrete cover; rebound methods; resonant frequency method; surface hardness methods; television inspection method; thermoluminescence technique; ultrasonic methods.

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